

Atty. Dkt. No. SOLAR1120-3
(051264-0306)

REMARKS

Courtesies extended to Applicant's representatives during the telephone interview held on March 22, 2006, are acknowledged with appreciation. Applicant respectfully requests reconsideration of the present application in view of the claim amendments and remarks that follow.

Applicant's invention relates to a simple, inexpensive and portable apparatus for heating and pasteurizing liquids, such as for example water, and methods for using and forming the apparatus. In particular, the invention is directed to such an apparatus adapted to operate using solar energy as a heat source. As recited in claim 1, the invention apparatus comprises a flexible water-tight resealable container having at least one resealable opening. The opening includes at least one water-tight spout with a mating resealable cap, wherein one or more reusable temperature indicators for indicating the temperature history of the water are positioned within the resealable cap. The temperature indicator is a glass tube containing wax adapted to melt at pasteurization temperatures. Thus, by using the indicator, the user can be sure the contents of the apparatus are safe for consumption. The cited references, either individually or in combination, fail to disclose, teach or suggest the invention as recited in claim 1.

By the present communication, claim 1 has been amended to define Applicant's invention with greater particularity. No new matter is introduced by the subject amendments as the amended claim language is fully supported by the specification and the original claims. Thus, claims 1, 3, 6, 7, 9, 10, 12-15, 17-22, 26, 37-39, 43, 44 and 47 are currently pending in the application. The present status of all claims in the application is indicated in the Listing of Claims, which begins on page 4.

By the present communication, the specification has been amended. Specifically, prior amendments to the specification at paragraphs [0014], [0014A] and [0062] have been deleted. Thus, the text of the specification is now identical to that which was present prior to the above noted amendments.

Atty. Dkt. No. SOLAR1120-3
(051264-0306)

Objection to the Drawings

The Examiner has objected to the amended drawings submitted with the response dated March 13, 2005. It is Applicant's understanding that the amended drawings have not been entered. Applicant hereby requests withdrawal of the amended drawings, and reinstatement of the original drawings. If further action is required, the Examiner is requested to call the undersigned so that prompt action can be taken to resolve this objection.

Rejection under 35 U.S.C. § 103(a)

a) Relevant Law

To establish a *prima facie* case of obviousness, three criteria must be met; there must be some motivation or suggestion, either in the cited publications or in knowledge available to one skilled in the art, to modify or combine the cited publications; there must be a reasonable expectation of success in combining the publications to achieve the claimed invention; and the publications must teach or suggest all of the claim limitations. *In re Vaeck*, 20 USPQ2d 1438 (Fed. Cir. 1991); MPEP § 2142. In analyzing obviousness, the Court of Appeals for the Federal Circuit has repeatedly cautioned that:

[t]he factual inquiry... must be based upon objective evidence of record.... [T]he best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.... [P]articular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed.

In re Sang-Su Lee, 277 F.3d 1338, 1343 (Fed. Cir. 2002) (internal citations omitted).

Atty. Dkt. No. SOLAR1120-3
(051264-0306)

b) Rejection Over GB 1 517 449 in view of SODIS Technical Note #17, Sodis Bags and Temperature Sensors, Burkhardt, (U.S. Patent No. 4,557,251), Ryder (U.S. Patent No. 3,939,968) and Brewer (U.S. Patent No. 2,847,067).

The rejection of claims 1, 3, 6, 7, 9, 10, 12, 13, 17-22, 26, 37-39, 43 and 47 under 35 U.S.C. § 103(a), as allegedly being unpatentable over GB 1 517 449 (hereinafter "the '449 patent") in view of SODIS Technical Note #17, Sodis Bags and Temperature Sensors (hereinafter "SODIS"), Burkhardt (U.S. Pat. No. 4,557,251; hereinafter "the '251 patent"), Ryder (U.S. Pat. No. 3,939,968; hereinafter "the '968 patent") and Brewer (U.S. Pat. No. 2,847,067; hereinafter "the '067 patent") is respectfully traversed. By this communication, Applicant traverses these rejections for at least the reasons set forth in the responses dated February 19, 2004 and March 13, 2005.

Applicant's invention, as defined for example, by claim 1, distinguishes over the 5 references relied upon by the Examiner by requiring a solar water pasteurizer comprising: a flexible water-tight resealable container, a resealable opening having at least one water-tight spout with a mating resealable cap, one or more reusable temperature indicators for indicating the temperature history of the water contained in the container positioned within the resealable cap, one or more energy converting structures, integrated into the container, a first insulation structure which includes gas contained within air-tight structures, a second insulation structure selected from gas contained within air-tight structures, closed cell foam or open cell foam, wherein the pasteurizer is enabled to achieve water temperatures of at least 60°C.

Specifically, with respect to the primary reference, Applicant's invention, as defined, for example, by claim 1, distinguishes over the '449 patent by requiring a solar water pasteurizer comprising, *inter alia*, a reusable temperature indicator and an insulation structure sufficient to enable the water pasteurizer to achieve temperatures of at least 60°C. As acknowledged by the Examiner, the primary reference, i.e., the '449 patent, does not disclose any temperature indicator or insulating structures. See Office Action, bottom of page 7. Furthermore, the '449 patent does not disclose or suggest achieving the minimum desired

Atty. Dkt. No. SOLAR1120-3
(051264-0306)

temperature of 60°C, instead only disclosing achieving temperatures of 58-59°C. See p.2, lines 53-61.

In efforts to overcome the acknowledged deficiencies of the primary reference, the Examiner turns to 4 secondary references (i.e., SODIS, the '251 patent, the '968 patent, and the '067 patent).

The SODIS reference does not cure the deficiencies of the primary reference, as it lacks several key features of the invention. For example, the SODIS reference does not disclose a solar water pasteurizer that includes one or more energy converting structures therein, a first and second insulation structure, or a temperature indicator positioned within a resealable cap which indicates that a temperature of at least 60°C has been attained. Instead, the SODIS disclosure is limited to a bag for retaining water that includes a reusable temperature indicator which indicates whether a temperature of 50°C has been obtained. There is simply no disclosure of any other features of Applicant's water pasteurizer.

Similarly, the Examiner's reliance on the '251 patent does not cure the deficiencies of the primary reference. In fact, Applicant submits that the '251 patent is irrelevant and reliance thereon is therefore improper. Applicant's claims require a flexible solar water pasteurizer. The '251 does not teach such a device. Rather, the '251 patent discloses a solar water heater having a rigid frame. Furthermore, the '251 patent does not include any temperature indicator(s).

To the extent the rejection relies upon the '968 patent (which discloses a system for holding contact lenses), as indicated by Applicant in a prior communication, the reference is non-analogous to the present invention. Therefore, the Examiner's reliance on the '968 patent for the assertion that it would be obvious for one having ordinary skill in the art to position and/or secure a reusable water pasteurization indicator in the cap is improper. First, the '968 patent does not relate to pasteurization systems. Rather, the '968 patent relates to the sterilization of contact lenses and does not disclose or suggest the treatment of water for

Atty. Dkt. No. SOLAR1120-3
(051264-0306)

drinking. Second, the '968 patent in no way relates to systems which use solar energy. Instead, the device disclosed in the '968 patent relies on an external heating device: "The contact lens holder 10 is then placed in a heating unit, such as an autoclave or boiler ..." See, col. 4, lines 23-24. Third, the temperature indicator is not in a reusable glass tube. See col. 4, lines 33-38; "...indicated by the presence of the eutectic material on the bottom of the vessel". Fourth, the temperature indicator of the '968 patent is not visible unless the contact lens holder is opened. See col. 4, lines 33-38; "[a]fter the lens holder has cooled and been opened... a simple visual inspection of the vessel will enable the user to determine readily whether or not the sterilization temperature has been reached..." Accordingly, the '968 patent constitutes non-analogous art; therefore the Examiner's continued reliance on the '968 patent is improper.

The Examiner's reliance on Brewer (see Office Action, page 8, lines 16-21) as disclosing a reusable temperature indicator, does not overcome the deficiencies of the other references. Brewer discloses only a reusable temperature indicator, and does not disclose any device or apparatus for the heating and/or pasteurization of water. Applicant's invention, as defined, for example, by claim 1 distinguishes over Brewer by requiring, *inter alia*, a flexible water-tight container, having first and second insulating structures, for the pasteurization of water. Brewer does not disclose such a device.

The Examiner identifies no clear suggestion or motivation (in any of the cited references) to combine any two or more references (let alone all five references as applied herein) to achieve Applicant's invention. Instead, the Examiner alleges that each reference is from the same field, (i.e., either from the field of "sterilization/pasteurizer indicator" or "solar energy heating"), and therefore, the combination of references would allegedly be obvious to one of skill in the art. Applicant respectfully disagrees with the assertion. It is clearly only with improper hindsight, and only with benefit of Applicant's disclosure, that there is any motivation to undertake the required modification of each prior art reference to arrive at the present invention. Absent Applicant's disclosure, there is no motivation to combine any of the asserted references,

Atty. Dkt. No. SOLAR1120-3
(051264-0306)

and even if there was such motivation, there is simply no guidance as to which features one should pick and choose from each prior art reference in order to arrive at Applicant's invention.

It is respectfully submitted that the present application is now in condition for allowance. Accordingly, favorable reconsideration of the application as amended is respectfully requested. The Examiner is invited to contact the undersigned by telephone in the event any issues remain to be resolved in view of this communication so that a prompt disposition of this application can be achieved.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-0872. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-0872. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-0872.

Respectfully submitted,

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